

II. CLAIM AMENDMENTS

1. (Currently Amended) A method for transferring image information from a camera module to an electronic device, wherein the camera module is constructed as an integral part of the electronic device, the method comprising the steps of:

forming an image in the camera module by means of an image sensor comprising pixels which convert light to which the pixels are exposed into an analogue signal,

converting said analogue signal into digital image information by analogue-to-digital conversion,

~~controlling the amount of the digital image information, captured by the camera module, to be transferred to the electronic device and the rate of the transfer of the digital image information as determined by the electronic device;~~

~~using the electronic device for controlling, whether the digital image information, captured by the camera module, is to be transferred to the electronic device as such, or in a reduced form; and~~

transferring the selected form of the digital image information from the camera module to the electronic device via an internal serial connection bus of the electronic device; ~~and,~~

~~controlling the amount of the digital image information, captured by the camera module, to be transferred to the electronic device and the rate of the transfer of the digital image information as determined by the electronic device.~~

2. (Cancelled)
3. (Previously Presented) A method according to claim 45, wherein reduction of the quantity of digital image information to be transferred from the camera module is conducted by adjusting the conversion accuracy of the analogue-to-digital conversion.
4. (Previously Presented) A method according to claim 45, wherein reduction of the quantity of information to be transferred from the camera module is conducted by reducing the resolution of the image.
5. (Previously Presented) A method according to claim 4, wherein reduction of the resolution of the image is conducted by under-sampling the digital image information.
6. (Previously Presented) A method according to claim 4, wherein the resolution of the image is restored in the electronic device by interpolation from the received digital image information.
7. (Currently Amended) A camera module constructed as an integral part of an electronic device, the camera module comprising an image sensor with pixels for conducting photoelectric conversion, and an analogue-to-digital converter for conversion of an analogue signal generated by said pixels into digital image information, the camera module further comprising:
 - a serial connection circuit for transferring digital image information to the electronic device and for receiving control information from the electronic device, wherein said control information operates to control the amount of the digital image information, captured by the camera module, to be transferred to the electronic

device, and further wherein said control information operates to control, whether the digital image information, captured by the camera module, is to be transferred to the electronic device as such, or in a reduced form and the rate of the transfer from the electronic device via an internal serial connection bus of the electronic device and whether the digital image information, captured by the camera module, is to be transferred to the electronic device as such, or in a reduced form; and further wherein said control is executed by the electronic device.

8. (Cancelled)

9. (Previously Presented) A camera module according to claim 47, adapted to reduce the quantity of digital image information to be transferred from the camera module by adjusting the conversion accuracy of the analogue-to-digital conversion performed by the analogue-to-digital converter.

10. (Previously Presented) A camera module according to claim 47, adapted to reduce the quantity of digital image information to be transferred from the camera module by reducing the resolution of the image.

11. (Previously Presented) A camera module according to claim 10, adapted to reduce the resolution of the image by under-sampling the digital image information.

12. (Cancelled)

13. (Currently Amended) A mobile station, comprising a camera module constructed as an integral part of the mobile station, the camera module comprising an image sensor with pixels for conducting photoelectric conversion, an analogue-to-digital converter for converting an analogue signal generated by the image sensor into digital image information and ~~a serial connection circuit for transferring digital image information formed by the camera module to the mobile station~~, the mobile station comprising an internal serial connection bus for transferring digital image information from the camera module to the mobile stationthe electronic device, wherein said control information operates to control ~~the amount of the digital image information, captured by the camera module, to be transferred to the electronic device and wherein said control information operates to control the rate of said transfer from the camera module to the mobile station and for transferring control information from the mobile station to the camera module, and whether the digital image information, captured by the camera module, is to be transferred to the mobile station electronic device as such, or in a reduced form; and to control the transfer of the selected form of the digital image information formed from the camera module to the mobile station,~~ further wherein said control is executed by the mobile stationelectronic device.

14-15. (Cancelled)

16. (Previously Presented) A mobile station according to claim 13, wherein the internal serial connection bus comprises a serial bus and a control serial bus and that the mobile station is adapted to transfer control information to the camera module via said control serial bus and to receive digital image information from the camera module in serial form via said serial bus.

17-18. (Cancelled)

19. (Previously Presented) A mobile station according to claim 13, further comprising means for transmitting digital image information, transferred from the camera module to the mobile station, from the mobile station via a wireless link.

20. (Cancelled)

21. (Previously Presented) A method according to claim 45, wherein the camera module is set into viewfinder mode responsive to a control signal received from the electronic device.

22. (Previously Presented) A method according to claim 45, wherein the camera module is set into normal photographic mode responsive to a control signal received from the electronic device.

23. (Previously Presented) A method according to claim 1, wherein the transfer of digital image information from the camera module to the electronic device is started responsive to a control signal received from the electronic device.

24. (Previously Presented) A method according to claim 1, wherein a picture is taken by the camera module responsive to a control signal received from the electronic device.

25. (Previously Presented) A method according to claim 45, wherein reduction of the quantity of digital image information to be transferred from the camera module is conducted by leaving less significant bits of the digital image information untransferred.

26. (Previously Presented) A method according to claim 45, wherein the camera module captures an image with maximum resolution and reduces the quantity of digital image information to be transferred at the stage when the digital image information is transferred to the electronic device.

27. (Previously Presented) A method according to claim 1, wherein the image is displayed on a display of the electronic device.

28. (Previously Presented) A method according to claim 1, wherein the camera module crops a region from an image and transfers the digital image information of the cropped region to the electronic device.

29. (Previously Presented) A method according to claim 28, wherein the electronic device sends information about the region of the image to be cropped to the camera module.

30. (Previously Presented) A method according to claim 1, wherein the electronic device is a mobile station and the method further comprises transmitting digital image information, transferred from the camera module to the mobile station, from the mobile station via a wireless link.

31. (Previously Presented) A camera module according to claim 47, adapted to be set into viewfinder mode responsive to a control signal received from the electronic device.

32. (Previously Presented) A camera module according to claim 47, adapted to be set into normal photographic mode responsive to a control signal received from the electronic device.

33. (Previously Presented) A camera module according to claim 7, adapted to start the transfer of digital image information from the camera module to the electronic device responsive to a control signal received from the electronic device.

34. (Previously Presented) A camera module according to claim 7, adapted to take a picture responsive to a control signal received from the electronic device.

35. (Previously Presented) A camera module according to claim 47, adapted to reduce the quantity of digital image information to be transferred from the camera module by leaving less significant bits of the digital image information untransferred.

36. (Previously Presented) A camera module according to claim 47, adapted to capture an image with maximum resolution and to reduce the quantity of digital image information to be transferred at the stage when the digital image information is transferred to the electronic device.

37. (Previously Presented) A camera module according to claim 7, adapted to crop a region from an image and to transfer the digital image information of the cropped region to the electronic device.

38 - 43. (Cancelled)

44. (Previously Presented) A method according to claim 1, wherein the digital image information is transferred from the camera module to the electronic device via the internal serial connection bus under control of the electronic device.

45. (Previously Presented) A method according to claim 1, wherein the camera module is adapted to operate in either one of a normal photographic mode and a viewfinder mode, such that when operating in viewfinder mode the camera module reduces the quantity of digital image information to be transferred from the camera module to the electronic device compared with the quantity of digital image information that is transferred when the camera operates in normal photographic mode.

46. (canceled)

47. (Previously Presented) A camera module according to claim 7, adapted to operate in either one of a normal photographic mode and a viewfinder mode and, when operating in viewfinder mode, to reduce the quantity of digital image information to be transferred from the camera module to the electronic device compared with the quantity of digital image information that is transferred when the camera operates in normal photographic mode.

48. (canceled)

49. (Previously Presented) A mobile station according to claim 13, wherein the camera module is adapted to operate in either one of a normal photographic mode and a viewfinder mode and, when operating in viewfinder mode, to reduce the quantity of digital image information to be transferred from the camera module to the mobile

station compared with the quantity of digital image information that is transferred when the camera operates in normal photographic mode.

50. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to reduce the quantity of digital image information to be transferred from the camera module by adjusting the conversion accuracy of the analogue-to-digital conversion performed by the analogue-to-digital converter.

51. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to reduce the quantity of digital image information to be transferred from the camera module by reducing the resolution of the image.

52. (Previously Presented) A mobile station according to claim 51, wherein the camera module is adapted to reduce the resolution of the image by under-sampling the digital image information.

53. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to be set into viewfinder mode responsive to a control signal received from the mobile station.

54. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to be set into normal photographic mode responsive to a control signal received from the mobile station.

55. (Previously Presented) A mobile station according to claim 13, wherein the camera module adapted to start the transfer of digital image information responsive to a control signal received from the mobile station.

56. (Previously Presented) A mobile station according to claim 13, wherein the camera module is adapted to take a picture responsive to a control signal received from the mobile station.

57. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to reduce the quantity of digital image information to be transferred from the camera module by leaving less significant bits of the digital image information untransferred.

58. (canceled)

59. (Previously Presented) A mobile station according to claim 13, wherein the camera module is adapted to crop a region from an image and to transfer the digital image information of the cropped region to the mobile station.

60. (Previously Presented) A mobile station according to claim 59, wherein the mobile terminal is adapted to send information about the region of the image to be cropped to the camera module.

61. (Previously Presented) A mobile station according claim 13, further comprising a display for displaying images produced by the camera module.

62. (Currently Amended) A method for transferring image information from a camera module to an electronic device, the camera module constructed as a non-removable, integral part of the electronic device, the method comprising the steps of:

forming an image in the camera module by means of an image sensor comprising pixels which convert light to which the pixels are exposed into an analogue signal,

converting said analogue signal into digital image information by analogue-to-digital conversion, and

~~controlling the amount of the digital image information, captured by the camera module, to be transferred to the electronic device and the rate of the transfer of the digital image information as determined by the electronic device;~~

~~using the electronic device for controlling, whether the digital image information, captured by the camera module, is to be transferred to the electronic device as such, or in a reduced form; and~~

transferring the selected form of the digital image information from the camera module to the electronic device via an internal serial connection bus of the electronic device, and

~~controlling the amount of the digital image information, captured by the camera module, to be transferred to the electronic device and the rate of the transfer of the digital image information as determined by the electronic device.~~

63.(Currently Amended) A camera module constructed as a non-removable, integral part of an electronic device, the camera module comprising an image sensor with pixels for conducting photoelectric conversion, and an analogue-to-digital converter for conversion of an analogue signal generated by said pixels into

digital image information, the camera module further comprising a serial connection circuit for transferring digital image information to the electronic device and for receiving control information from the electronic device, wherein said control information operates to control the amount of the digital image information, captured by the camera module, to be transferred to the electronic device, and further wherein said control information operates to control, whether the digital image information, captured by the camera module, is to be transferred to the electronic device as such, or in a reduced form and the rate of the transfer from the electronic device via said serial connection circuit to the electronic device and whether the digital image information, captured by the camera module, is to be transferred to the electronic device as such, or in a reduced form; and further wherein said control is executed by the electronic device.

~~relating to the quantity and rate of the transfer from the electronic device via an internal serial connection bus of the electronic device.~~

64. (Currently Amended) A mobile station, comprising a camera module constructed as a non-removable, integral part of the mobile station, the camera module comprising an image sensor with pixels for conducting photoelectric conversion, an analogue-to-digital converter for converting an analogue signal generated by the image sensor into digital image information, ~~and a serial connection circuit for transferring digital image information formed by the camera module to the mobile station,~~ the mobile station comprising an internal serial connection bus for transferring digital image information from the camera module to the mobile station and for transferring control information relating to the from the electronic device, wherein said control information operates to control, whether the digital image information, captured by the camera module, is to be transferred to the mobile station as such, or in a reduced form; and to control the transfer of the

selected form ~~the amount of the digital image information from the camera module to the mobile station, , captured by the camera module, to be transferred to the electronic device and further wherein the control information operates to control and the rate of the transfer from the electronic device via said internal serial connection bus and whether the digital image information, captured by the camera module, is to be transferred to the electronic device as such, or in a reduced form;~~ and further wherein said control is executed by the mobile station ~~electronic device~~.